CHECKLIST ENVIRONMENTAL ASSESSMENT

Project Name:	Patchtop/ Snow shoe TNC Burn
Proposed Implementation Date:	Spring and Fall 2013
Proponent:	The Nature Conservancy
Location:	T13S R2W Section 3,4,5,8,9,10
County:	Beaverhead

I. TYPE AND PURPOSE OF ACTION

The Nature Conservancy (TNC) has submitted a request to conduct a controlled broadcast burn on approximately 70 acres of state DNRC land to improve sagebrush grasslands for Sage-grouse, pygmy rabbit, and other wildlife species by removing perches for Corvids and other predators. Included in this request, TNC will conduct several small (<1ac) jackpot burns to restore large diameter Douglas Fir and Aspen woodlands. The jackpot piles will be hand-piled small diameter tress cut from Aspen and from around large legacy Douglas Fir trees. The broadcast burn as well as the jackpot piles will be completed within an 800 acre treatment area. The State lands included in this proposal are **Sections 3, 4, 5, 8, 9, and 10 Township 13 South - Range 2 West.**

II. PROJECT DEVELOPMENT

1. PUBLIC INVOLVEMENT, AGENCIES, GROUPS OR INDIVIDUALS CONTACTED:

Provide a brief chronology of the scoping and ongoing involvement for this project.

Montana Dept. of Fish, Wildlife, & Parks Biologist, Craig Fager
Montana Natural Heritage Program
DNRC Archaeologist, Patrick Rennie
Beaverhead County Commissioners
Red Rock Lakes NWR
Beaverhead – Deerlodge National Forest
BLM- Dillon Field Office
J Bar L Ranches
Lee Martinell Company
James Dschaak
Louise Bruce
Nate Finch

2. OTHER GOVERNMENTAL AGENCIES WITH JURISDICTION, LIST OF PERMITS NEEDED:

Montana/Idaho Airshed Group – Smoke Management

3. ALTERNATIVES CONSIDERED:

Alternative A – No Action Alternative, The TNC would not be allowed to conduct the broadcast and jackpot burns.

Alternative B – Action Alternative, Allow TNC to conduct the broadcast and jackpot burns as requested.

III. IMPACTS ON THE PHYSICAL ENVIRONMENT

- *RESOURCES potentially impacted are listed on the form, followed by common issues that would be considered.*
- *Explain POTENTIAL IMPACTS AND MITIGATIONS following each resource heading.*
- *Enter "NONE" If no impacts are identified or the resource is not present.*

4. GEOLOGY AND SOIL QUALITY, STABILITY AND MOISTURE:

Consider the presence of fragile, compactable or unstable soils. Identify unusual geologic features. Specify any special reclamation considerations. Identify any cumulative impacts to soils.

The Centennial Sandhills are located in the project area. These sandhills are small, generally stabilized dunes that formed from wind-blown sands deposited in the basins of Red Rock Lakes. Soils vary from pure sand in blowouts and recent deposition areas, to loamy sand in the more stabilized areas, especially those with relatively little topographic relief. Organic matter varies from a mean of 2% in stabilized positions to 0.6% in erosional and depositional positions (Lesica and Cooper 1996). The burn is planned above the main sand dune area, no disturbance is expected in the sand dunes as a result of this project.

If the fire escapes planned control lines, the area could see a decrease in vegetation and may initiate new episodes of sand dune migration.

5. WATER QUALITY, QUANTITY AND DISTRIBUTION:

Identify important surface or groundwater resources. Consider the potential for violation of ambient water quality standards, drinking water maximum contaminant levels, or degradation of water quality. Identify cumulative effects to water resources.

Short term water quality will be affected by runoff of storm water until new grasses and forbs grow in the fire area. Under spring burning conditions, grasses should begin to grow within a week of the burn.

6. AIR QUALITY:

What pollutants or particulate would be produced? Identify air quality regulations or zones (e.g. Class I air shed) the project would influence. Identify cumulative effects to air quality.

The burn area is located in Airshed 7 of the Montana/Idaho Airshed Group area. Smoke will be produced for a short duration during the burn and any impacts should be minimal. The area is located away from populated areas and somke dispersion is not a problem. No long term or cumulative effects area anticipated.

7. VEGETATION COVER, QUANTITY AND QUALITY:

What changes would the action cause to vegetative communities? Consider rare plants or cover types that would be affected. Identify cumulative effects to vegetation.

Vegetation in the project area range from sparsely vegetated sandy soils toward more densely vegetated loamy sands with increased organic matter. The sparse shrub canopy dominated by green rabbitbrush (*Chrysothamnus viscidiflorus*), rubber rabbitbrush (*C. nauseosus*), and horsebrush (*Tetradymia canescens*) and sparse cover of needle-and-thread grass (*Stipa comata*) and thickspike wheatgrass (*Agropyron dasystachyum*) develops into sagebrush steppe.

Fire: Early-seral dominant shrubs, rabbitbrush and horsebrush, resprout immediately following fire and may increase in abundance. Three-tip sagebrush (*Artemisia tripartita*) is the dominant late seral shrub in portions at the west end of the study area. This species is not killed by fire and is able to resprout from the root crown. Succession should proceed more quickly following fire in areas dominated by *A. tripartita* compared to those dominated by basin big sagebrush (*A. tridentate*ssp. *tridentata*). The rhizomatous, early seral dominants thickspike wheatgrass and slimflower scurfpea (*Psoralea tenuiflora*) suffer little damage from fire, while dominant late seral grasses, Idaho fescue (*Festuca idahoensis*) and needle-and-thread grass, are often harmed by fire and may not return to preburn levels for 12-30+ years. Early seral vegetation is relatively sparse and would not be likely to carry a hot fire. Fire may cause an increase in the proportion of rhizomatous grasses compared to the bunchgrasses.

8. TERRESTRIAL, AVIAN AND AQUATIC LIFE AND HABITATS:
Consider substantial habitat values and use of the area by wildlife, birds or fish. Identify cumulative effects to fish and wildlife.

The project would reduce Douglas Fir that are encroaching into sage grouse habitat. Reducing this encroachment may improve sage grouse habitat, and reduce perches for the predators that currently feed on sage grouse. Adverse impacts to aquatic and terrestrial species are not expected due to results of this project. No long term or cumulative effects are anticipated if the action alternative is chosen and implemented.

9. UNIQUE, ENDANGERED, FRAGILE OR LIMITED ENVIRONMENTAL RESOURCES:
Consider any federally listed threatened or endangered species or habitat identified in the project area. Determine effects to wetlands. Consider Sensitive Species or Species of special concern. Identify cumulative effects to these species and their habitat.

The Montana Natural Heritage Program was contacted regarding species of concern within and around the project area. Seven species of concern were identified.

This proposal is aimed at improving habitat for pygmy rabbit and greater sage grouse by removing Douglas fir encroachment, to improve open sage land environment and reduce perches for predators that feed on them. Other species of concern within and around the project area include wolverine, grizzly bear, Westslope cutthroat trout, Preble's shrew, Great Blue Heron and the Great Basin pocket mouse. Adverse impacts to these species should be minimal as a result of this proposed project. No long term or cumulative impacts are anticipated from the implementation of the action alternative or no action alternative.

10. HISTORICAL AND ARCHAEOLOGICAL SITES:
Identify and determine effects to historical, archaeological or paleontological resources.

According to DNRC Archaeologist Patrick Rennie, none of the area proposed for treatment has been inventoried for cultural resources. There is an unconfirmed lead of a sheepherder's monument (a stacked cairn) in the SESW 1/4 Section 9, T13S R2W. Considering the nature of the proposed project, the chance of adverse effects occurring to heritage properties is low.

11. AESTHETICS:
Determine if the project is located on a prominent topographic feature, or may be visible from populated or scenic areas. What level of noise, light or visual change would be produced? Identify cumulative effects to aesthetics.

No adverse affects to aesthetics are expected. The burn area will be black for only a short period of time before grass and forbs begin to sprout.

12. DEMANDS ON ENVIRONMENTAL RESOURCES OF LAND, WATER, AIR OR ENERGY:
Determine the amount of limited resources the project would require. Identify other activities nearby that the project would affect. Identify cumulative effects to environmental resources.

No increased demands are expected as a result of this proposed project.

13. OTHER ENVIRONMENTAL DOCUMENTS PERTINENT TO THE AREA:
List other studies, plans or projects on this tract. Determine cumulative impacts likely to occur as a result of current private, state or federal actions in the analysis area, and from future proposed state actions in the analysis area that are under MEPA review (scoped) or permitting review by any state agency.

Currently DNRC is completing an EA with the Natural Resource and Conservation Service in the same area for spring development and water pipeline/stock tank installation in and near the project area. The two projects will have short term effects on existing roads, but impacts are expected to be minimal.

IV. IMPACTS ON THE HUMAN POPULATION

- *RESOURCES potentially impacted are listed on the form, followed by common issues that would be considered.*
- *Explain POTENTIAL IMPACTS AND MITIGATIONS following each resource heading.*
- *Enter "NONE" If no impacts are identified or the resource is not present.*

No adverse impacts to the human population are expected. If prescribed fire escapes planned control lines, short term effects of the fire will impact local ranches that use the area for rangeland.

14. HUMAN HEALTH AND SAFETY:
Identify any health and safety risks posed by the project.

Short term smoke will be produced and impact air quality. Effects of the proposed project are expected to be minimal.

15. INDUSTRIAL, COMMERCIAL AND AGRICULTURE ACTIVITIES AND PRODUCTION:
Identify how the project would add to or alter these activities.

No impacts are expected because of this project.

16. QUANTITY AND DISTRIBUTION OF EMPLOYMENT:
Estimate the number of jobs the project would create, move or eliminate. Identify cumulative effects to the employment market.

This project is not expected to affect employment in the area.

17. LOCAL AND STATE TAX BASE AND TAX REVENUES:
Estimate tax revenue the project would create or eliminate. Identify cumulative effects to taxes and revenue.

Local and state tax revenues will not be affected by the proposed project.

18. DEMAND FOR GOVERNMENT SERVICES:
Estimate increases in traffic and changes to traffic patterns. What changes would be needed to fire protection, police, schools, etc.? Identify cumulative effects of this and other projects on government services.

No demand for government services are expected as a result of this project. Short term demand could occur if the fire escapes expected containment lines in the form of fire suppression resources.

19. LOCALLY ADOPTED ENVIRONMENTAL PLANS AND GOALS:
List State, County, City, USFS, BLM, Tribal, and other zoning or management plans, and identify how they would affect this project.

None

20. ACCESS TO AND QUALITY OF RECREATIONAL AND WILDERNESS ACTIVITIES:
Identify any wilderness or recreational areas nearby or access routes through this tract. Determine the effects of the project on recreational potential within the tract. Identify cumulative effects to recreational and wilderness activities.

None

21. DENSITY AND DISTRIBUTION OF POPULATION AND HOUSING:
Estimate population changes and additional housing the project would require. Identify cumulative effects to population and housing.

None

22. SOCIAL STRUCTURES AND MORES:
Identify potential disruption of native or traditional lifestyles or communities.

None

23. CULTURAL UNIQUENESS AND DIVERSITY:
How would the action affect any unique quality of the area?

The proposed project area is located above the Centennial Sandhills area. As a result, the proposed project is not expected to impact the area unless the fire escapes planned containment lines. If the fire escapes those lines then the Sandhills could be impacted. However, with previous fire activity in the area the effects are expected to be minimal. All efforts should be made to keep the fire within established control lines.

24. OTHER APPROPRIATE SOCIAL AND ECONOMIC CIRCUMSTANCES:
Estimate the return to the trust. Include appropriate economic analysis. Identify potential future uses for the analysis area other than existing management. Identify cumulative economic and social effects likely to occur as a result of the proposed action.

This project is not expected to increase, or decrease economic return to the trust.

EA Checklist Prepared By:	**Name:**	Jay Lemon	**Date:**	3/18/2013
	Title:	Fire Team Leader		

V. FINDING

25. ALTERNATIVE SELECTED:

Alternative B – Action Alternative, Allow TNC to conduct the broadcast and jackpot burns as requested.

26. SIGNIFICANCE OF POTENTIAL IMPACTS:

Choosing the action alternative will allow the TNC to remove Douglas fir encroachment from a known sagegrouse habitat area. This will help create some mosaic edge effect in the Patchtop Mountain area and will reduce predator perch areas in this location. The burn will occur in the spring which will be a cooler burn allowing for a quicker response and recovery of the native vegetation.

The Nature Conservancy, leases this state ground and accepts all liability and expenses for the burn.

27. NEED FOR FURTHER ENVIRONMENTAL ANALYSIS:

	EIS		More Detailed EA	X	No Further Analysis

EA Checklist Approved By:	**Name:**	Timothy Egan
	Title:	Dillon Unit Manager
Signature: /S/ Timothy Egan		**Date**: 3/28/13